

Fusion3G® Auto Failover Audio (+AFO) and Auto Downmix (+ADM) options allow automated alternate-channel processing and routing should expected audio sources become unavailable.

Both of these options work with any audio sources supported by the card and allow for controlled, aesthetically appropriate transition to and from failover. Both of these options are available on new cards, or as an easy-to-install field upgrade using a license key upload to the card via Dashboard™ remote control.



**Auto Failover Audio (+AFO) software option** provides automatic failover to alternate ("secondary") channels to substitute for the primary channels in the event of audio signal loss.

In the example here, bus channels 1 thru 4 have primary sources as Emb Ch 1, Emb Ch 2, AES Ch 1, and AES Ch 2. In the example, AES Ch 1 and AES Ch 2 have experienced signal loss and have failed over to selected choices Analog Ch 1 and Analog Ch 2 (as shown by the **Secondary** Failover indication for these primary channels).

Audio Failover master enable/disable control

	Source	Secondary Source	Failover
Bus Ch 1	Embed Ch 1	Embed Ch 7	Primary
Bus Ch 2	Embed Ch 2	Embed Ch 8	Primary
Bus Ch 3	AES Ch 1	Analog Input 1	Secondary
Bus Ch 4	AES Ch 2	Analog Input 2	Secondary
⋮			
Bus Ch 16	AES Ch 4	Silence	Primary

  

**Audio Failover**  Enabled

Audio Failover Threshold (dBFS)

Primary to Secondary Holdoff (ms)

Secondary to Primary Holdoff (ms)

Input Routing    Input Downmixers    Input Flex Mix    Dolby E Alignment

Failover controls set the conditions that comprise a loss of audio event, and also a transition back to primary channels.

- If the selected channels maintain levels above the selected **Audio Failover Threshold**, no triggering is invoked.
- If these channels fall below the selected threshold for period specified by the **Primary to Secondary Holdoff** control, the primary channels are replaced with the designated secondary channels.
- **Secondary to Primary Holdoff** control sets the time in which the trigger is revoked upon resumption of primary channel signals

**Note:** Card requires appropriate licensing where channels other than embedded audio are used as primary or failover choices.

**Auto Downmix (+ADM) software option** provides automatic stereo downmix from selected alternate multi-channel sources if primary stereo channels lose signal.

	Lp	Rp	Failover
Downmixer A	Embed Ch 1	Embed Ch 2	<span style="color: green;">●</span> Primary
⋮			
Downmixer D	AES Ch 1	AES Ch 2	<span style="color: orange;">●</span> Downmix
Downmixer D	Silence	Silence	<span style="color: orange;">●</span> Downmix

Auto Downmix monitors designated primary channels for up to four downmixers (primary channels **Lp** and **Rp** as Emb 1 and Emb 2 in the example).

- If these channels maintain levels above a selected threshold, primary channels **Lp** and **Rp** pass unaffected (as indicated by **Failover** indicator showing **Primary**).
- If these channels fall below a selected threshold for a specified selected period, downmixed content replaces the primary channels (as indicated by **Failover** indicator showing **Downmix**).

<b>Auto Downmix</b>	<input type="button" value="Enabled"/>
<b>Downmix Threshold (dBFS)</b>	-60.0
<b>Primary to Downmix Holdoff (ms)</b>	5000
<b>Downmix to Primary Holdoff (ms)</b>	0

- **Auto Downmix** enables or disables auto downmixing for the four downmixers.
- **Downmix Threshold** sets the threshold (in input dBFS) at which content above the threshold maintains primary channel use.
- **Primary to Downmix Holdoff** sets the time allowed for below-threshold primary content before downmix failover is engaged.
- **Downmix to Primary Holdoff** sets the time allowed, when primary is noted to be above threshold, before primary content is again engaged for use.